ABSTRACT OF THE DISCLOSURE

For enhancing plasma uniformity and long-term stability so as to readily form a film with excellent uniformity of thickness and quality and with good repeatability and for suppressing occurrence of image defects and drastically increasing the yield to form a deposited film ready for volume production, particularly, a functional deposit film (for example, an amorphous semiconductor used for semiconductor devices, electrophotographic photosensitive members, photovoltaic devices, and so on) is formed in an apparatus including a reaction vessel which can be hermetically evacuated, a substrate holder in the reaction vessel, a source gas supply, a power supply for high-frequency power. An end covering member is provided at an end of each of the substrate holder, the source gas supply and the power supply.